OPTICAL SYSTEMS DESIGN

OSD NETWORKS

Engineered Industrial Ethernet Solutions

www.osd.com.au

Unmanaged Ethernet Media Converters & Switches

Unmanaged Fast Ethernet Media Converters & Switches with PoE option

			
Product Range	**OSD2041**	**OSD2043**	**OSD2051**
10/100 Base-T RJ45 ports	1	1	1
Optical port	1 x Fixed or 1 x SFP	Fixed x 1	SFP x 1
Power Input	9-36VDC 24VAC	9-36VDC 47-57VDC (PoE)	9-36VDC 24VAC
Module Mounting	Wall		
Card version (requires OSD350 or OSD370 rack)	✓	-	-
PoE	-	1 port (optional)	-
PoE Classification	-	IEEE802.3af/at (max 30W)	-
IP rating (module version)	IP30		
Operating Temperature	-40 to 75°C	0 to 60°C Optionally -40 to 75°C	-40 to 75°C
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

		
Product Range	**OSD2053P**	**OSD2052**
10/100 Base-T RJ45 ports	1	2
Optical port	SFP x 1	SFP x 1
Power Input	10-36VDC or 46-57VDC	9-36VDC 24VAC
Module Mounting	DIN / Wall	Wall
Card version (requires OSD350 or OSD370 rack)	-	-
PoE	1 port	-
PoE Classification	IEEE802.3af (max 15W)	-
IP rating (module version)	IP30	
Operating Temperature	-40 to 75°C	
Ambient Relative Humidity	5 to 95% (non-condensing)	
Warranty	5 years	

Unmanaged Ethernet Media Converters & Switches

Unmanaged Gigabit Ethernet Media Converters & Switches with PoE option

					
Product Range	**OSD2111-xNx2**	**OSD2153**	**OSD2166**	**OSD2168**	**OSD2139**
10/100/1000 Base-T RJ45 ports	1	1	1	1	1
Optical port	1 x Fixed or 1 x SFP	SFP x 1	Fixed x 1	1 x Fixed or 1 x SFP	SFP x 1
Power Input	9-36VDC 24VAC	8-35VDC 47-57VDC (PoE)	9-36VDC	50-56VDC	9-35VDC
Module Mounting	Wall				
Card version (requires OSD350 or OSD370 rack)	✓	-	-	-	-
Jumbo Frames	10kB				
PoE (optional or fixed)	-	1 port (optional)	-	1 port	-
PoE Classification	-	IEEE802.3af (max 15W)	-	IEEE802.3af/at (max 30W)	-
Additional Features	Link Loss Forwarding		-	Link Loss Forwarding with SFP option only	Duplex transmission of one RS485/RS422 and one RS232
IP rating (module version)	IP30				
Operating Temperature	-40 to 75°C		0 to 60°C Optionally -20 to 75°C		-20 to 75°C
Ambient Relative Humidity	5 to 95% (non-condensing)				
Warranty	5 years				

					
Product Range	**OSD2175**	**OSD2183P**	**OSD211x-1BD8**	**OSD2112-xNx2**	**OSD2114-1Nx2**
10/100/1000 Base-T RJ45 ports	1	1	1 or 2	2	4
Optical port	SFP x 2	SFP x 1	SFP x 1	SFP (1 or 2)	SFP x 1
Power Input	-44 to -56VDC or 100-264VAC	46-57VDC or 12-57VDC	12-57VDC	9-35VDC	
Module Mounting	Wall	Wall/DIN	Wall/DIN	Wall	
Card version (requires OSD350 or OSD370 rack)	-	-	-	✓	
Jumbo Frames	10kB				
PoE	1 port (optional)	1 port	1 or 2 port	-	-
PoE Classification	IEEE802.3af/at	IEEE802.3af/at/bt UPoE, PoH (max 90W/port)		-	-
PoE Power Budget	30W	60W@12VDCin 90W@>36VDCin	60W@12VDCin 170W@>36VDCin	-	-
Additional Features	Link Loss Forwarding, Optional Synchronous Ethernet	Customisable PoE via Web GUI	Factory Set for IEEE802.3bt or UPoE, PoH	-	-
IP rating (module version)	IP30				
Operating Temperature	-20 to 75°C				
Ambient Relative Humidity	5 to 95% (non-condensing)				
Warranty	5 years				

OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

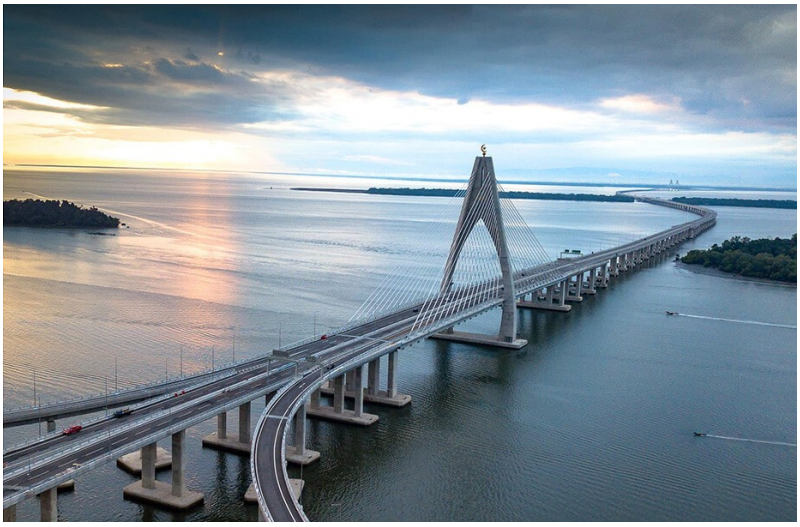
Unmanaged Ethernet Media Converters & Switches

Unmanaged 10 Gigabit Ethernet Media Converters & Switches with PoE option

				
Product Range	**OSD2121-1NW2**	**OSD2121-1BDx**	**OSD2122-xND2**	**OSD2122-xBDx**
100M/1G/2.5G/5G/10G Base-T RJ45 ports	1	1	2	2
Optical port	SFP+ x 1	SFP+ x 1	1 x SFP+ or 2 x SFP+	1 x SFP+ or 2 x SFP+
Power Input	10-36VDC	46-57VDC or 12-57VDC	10-36VDC	46-57VDC or 12-57VDC
Module Mounting	Wall	Wall/DIN	Wall	Wall/DIN
Jumbo Frames	10kB			
PoE	-	1 port	-	2 ports
PoE Classification	-	IEEE802.3af/at/bt UPoE, PoH (max 90W)		IEEE802.3af/at/bt UPoE, PoH (max 90W/port)
PoE Power Budget	30W	60W@12VDCin 90W@>36VDCin	-	60W@12VDCin 170W@>36VDCin
Additional Features	Link Loss Forwarding	Factory Set for IEE-E802.3bt or UPoE, PoH	-	Factory Set for IEE-E802.3bt or UPoE, PoH
IP rating (module version)	IP30			
Operating Temperature	-20 to 65°C			
Ambient Relative Humidity	5 to 95% (non-condensing)			
Warranty	5 years			

Featured Project

Sultan Haji Omar Ali Saifuddien Bridge, Brunei



The longest bridge in SE Asia was opened in March 2020 utilising OSD products in it's video surveillance system. Over 250 units of OSD225x series of products were used in multiple redundant rings to provide the fiber backbone for high definition video surveillance along this 30km bridge. OSD worked closely with stakeholders in Singapore, Indonesia and Brunei for this project. The OSD2251P were deployed along the bridge, connecting to the IP cameras, and the OSD2254 provided the connection from the fiber rings to the core network. OSD's range of Industrial Ethernet products are well suited to operate in Brunei's climate of high temperatures and high humidity.

OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

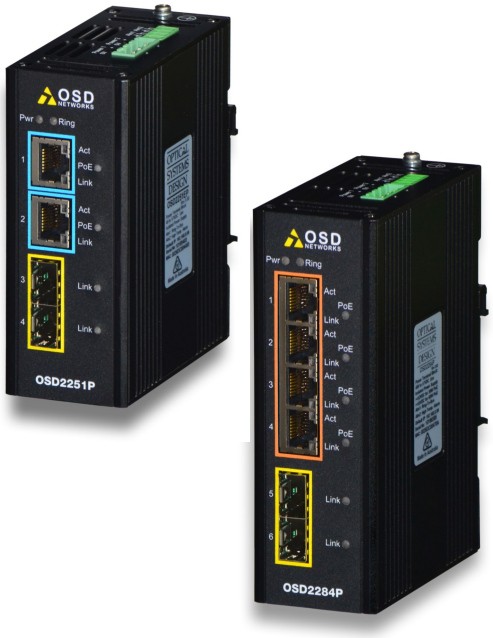
Managed Ethernet Switches

Lite Managed Gigabit Ethernet Switches

			
Product Range	**OSD2251E**	**OSD2254E**	**OSD2258E**
10/100/1000 Base-T RJ45 ports	2	4	8
Optical port	SFP x 2	SFP x 2	SFP x 2
Power Input	10-36VDC		
Module Mounting	DIN / Wall		
Jumbo Frames	10kB		
Management Features	CLI, Web GUI, SNMP v1,v2c,v3 MAC binding to port, Access Control		
Redundant Fiber Ring	Redundant Ring (OSD proprietary ring)		
Additional Features	IEEE802.1Q VLAN IGMP Snooping v1, v2, v3		
IP rating (module version)	IP30		
Operating Temperature	-20 to 75°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

Featured Products

The OSD225X and OSD228X series of products are ideally suited for deployment at the edge of networks where connection of a product to the network is required. The hardened design of these Industrial Ethernet Switches ensure they can operate in harsh environmental conditions. With lite management via a built-in web GUI, users can easily configure and monitor devices remotely. Full SNMP support (v1, v2c, v3) enables seamless integration into third-party network management systems (NMS) for centralised oversight. Designed for today's power-intensive devices, the OSD228X series supports the latest IEEE802.3bt standard delivering up to 90W of power per port whilst also being compatible with PoH, UPoE and other non standard protocols. All models in the OSD225X and OSD228X range feature dual SFP ports allowing great flexibility when connecting these products over a fiber optic network. These two SFP ports can be used as uplink ports or in a redundant ring.



OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

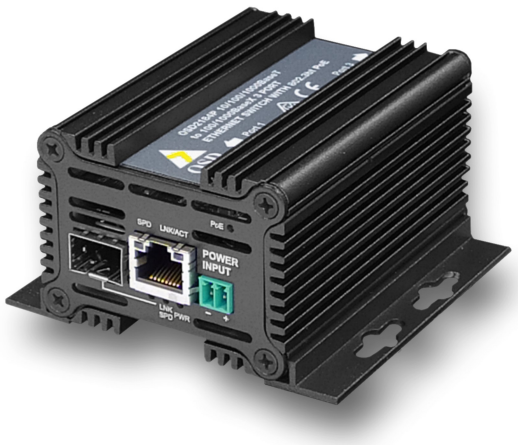
Managed Ethernet Switches

Lite Managed Gigabit Ethernet Switches with PoE

				
Product Range	**OSD2184P**	**OSD2281P**	**OSD2284P**	**OSD2288P**
10/100/1000 Base-T RJ45 ports	2	2	4	8
Optical port	SFP x 1	SFP x 2		
Power Input	46-57VDC or 12-57VDC	46-57VDC		
Module Mounting	DIN / Wall			
Jumbo Frames	10kB			
PoE	2 ports	2 ports	4 ports	8 ports
PoE Classification	IEEE802.3af/at/bt, UPoE, PoH (max 90W/port)			
PoE Power Budget	170W @ >48VDCin	170W	240W	360W
Management Features	CLI, Web GUI, SNMP v1,v2c,v3 MAC binding to port, Access Control			
Redundant Fiber Ring	-	Redundant Ring (OSD proprietary ring)		
Additional Features	Customisable PoE via Web GUI Non Managed option. DHCP client IEEE802.1Q VLAN	Customisable PoE via Web GUI IEEE802.1Q VLAN IGMP Snooping v1, v2, v3		
IP rating (module version)	IP30			
Operating Temperature	-40 to 75°C	-20 to 75°C		
Ambient Relative Humidity	5 to 95% (non-condensing)			
Warranty	5 years			

Featured Product

The OSD2184P is a lite-managed 3-port Industrial Ethernet switch offering Power over Ethernet meeting the latest IEEE802.3bt PoE specification with continued support for devices requiring IEEE802.3af/at and HDBase-T (PoH) PoE. Each of the two RJ45 ports is capable of providing 90W of power with a total power budget of 170W. This allows the latest PoE devices such as IP cameras, Wireless Access Points, microwave links and VOIP phones to be easily connected to your network. Support for SNMPv1, v2c, v3 allows the OSD2184P to easily integrate with third party NMS systems. Network security is enhanced with the ability to allow only specific MAC addresses to communicate through each port whilst the OSD2184P also supports DHCP allowing for automatic assignment of IP address, subnet mask, default gateway address and DNS address for ease of integration into the network. With a compact design the OSD2184P can easily be mounted inside a network enclosure or a Smart Pole using the DIN rail or wall mounting brackets provided. Additionally, the OSD2184PW version can be powered from a 12VDC to 57VDC supply (Maximum output power is related to input voltage). A rugged IP30 casing, fanless design and wide operating temperature range from -40 to +75°C make this product ideally suited for use in a wide range of harsh industrial environments.



OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

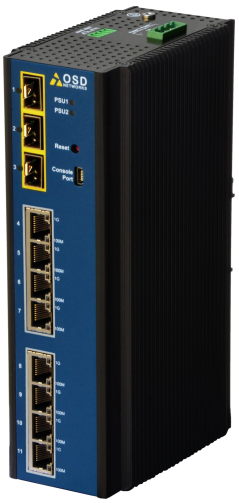
Managed Ethernet Switches

Layer 2 Managed Gigabit Ethernet Switches with PoE and SFP combo option

		
Product Range	**OSD2314**	**OSD2318**
10/100/1000 Base-T RJ45 ports	4	8
Optical Port	SFP x 3	
Optical Port Speed	Ports 1 & 2 = 100/1000/2500Base-X Port 3 = 100/1000Base-X	
Combo Ports (optional)	4 x RJ45/SFP ports	
Power Input	10-36VDC (no PoE) 46-57VDC or 12-57VDC (PoE)	
Module Mounting	DIN / Wall	
Jumbo Frames	9.6kB	
PoE (optional)	4 ports	8 ports
PoE Classification	IEEE802.3af/at, IEEE802.3bt, UPoE, PoH (max 90W/port)	
PoE Power Budget	360W	480W
Management Features	CLI, Web GUI, SNMP v1, v2c, v3	
Redundant Ring	ITU-TG8032 ERPS, MSTP/RSTP/STP	
VLAN	IEEE802.1Q VLAN. Private VLAN, Voice VLAN, Protocol based VLAN, GVRP, MVRP, MRP	
Security	IEEE802.1x Port Access Authentication, MAC based authentication, ACLs, DHCP snooping, BPDU Guard, RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON	
QoS	Traffic Classes, Port policers, Port egress shaper, QoS Control List, DiffServ, Scheduler priority, Storm Control	
Multicast Protocol	RFC 2236 IGMP snooping v2, v3, MLD snooping v1, v2	
Layer 3 Routing	IPv4/IPv6 static routing	
IP rating	IP30	
Operating Temperature	-40 to 75°C	
Ambient Relative Humidity	5 to 95% (non-condensing)	
Warranty	5 years	

Featured Product

The OSD2318 family is Layer 2 managed 11-port Industrial Ethernet switch with eight 10/100/1000 Base-T copper ports and three SFP ports that can be used as switch or uplink ports. 2 SFP ports operate at 100/1000/2500Base-X speeds whilst the third port operates at 100/1000Base-X. Optional Power over Ethernet meeting the latest IEEE802.3bt PoE specification is available with each RJ45 port capable of supplying up to 90W of power to support the latest PoE devices with a total power budget of 480W. Non-standard UPoE and POH can be configured via the GUI. For increased flexibility four or eight RJ45/SFP combo ports can be configured. Two of the gigabit SFP ports can be aggregated for use as uplink ports or any two ports (copper or SFP) can be used as a ITU-TG 8032 redundant ring. With support for VLAN, IGMP snooping, industry standard RSTP or MSTP and IEEE802.1x port security, it is suitable for use in critical networks. A rugged, fan less, IP30 DIN Rail mount enclosure and an operating temperature range from -40 to +75°C allows the unit to be deployed in a wide range of harsh industrial environments.



OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

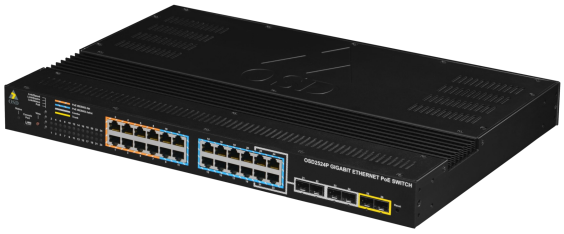
Managed Ethernet Switches

Layer 2 Managed Gigabit Ethernet Switches with PoE option

				
Product Range	**OSD2512**	**OSD2524**	**OSD2790**	**OSD2790SFP**
10/100/1000 Base-T RJ45 ports	12	24	24	-
Optical port	SFP x 2	SFP x 6	SFP x 4	SFP x 28
Combo Ports	-	4 x RJ45/SFP ports	-	-
Power Input	10-36VDC or 100-264VAC(non PoE) Dual Input power option 46-57VDC (PoE)			10-36VDC or 100-264VAC Dual Input power option
Module Mounting	19" Rack Mount / Desktop			
Jumbo Frames	9.6kB			
PoE	12 ports (optional)	24 ports (optional)	24 ports (optional)	-
PoE Classification	IEEE802.3af/at/bt, UPoE, PoH (Ports 1-8, max 90W/port)			-
PoE Power Budget	720W			-
Management Features	CLI, Web GUI, SNMP v1, v2c, v3			
Redundant Fiber Ring	ITU-TG8032 ERPS, MSTP/RSTP/STP			
VLAN	IEEE802.1Q VLAN. Private VLAN, Voice VLAN, Protocol based VLAN, GVRP, MVRP, MRP			
Security	IEEE802.1x Port Access Authentication, MAC based authentication, ACLs, DHCP snooping, BPDU Guard, RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON			
QoS	Traffic Classes, Port policers, Port egress shaper, QoS Control List, DiffServ, Scheduler priority, Storm Control			
Multicast Protocol	RFC 2236 IGMP snooping v2, v3, MLD snooping v1, v2			
Layer 3 Routing	IPv4/IPv6 static routing		IPv4/IPv6 static routing, RFC2328 OSPFv2 dynamic routing, UPnP, RFC-1812 L3 checking	
IP rating (module version)	IP30			
Operating Temperature	-20 to 70°C			
Ambient Relative Humidity	5 to 95% (non-condensing)			
Warranty	5 years			

Featured Product

The OSD2524P is a Layer 2 managed 26-port Industrial Ethernet switch offering Power over Ethernet meeting the latest IEEE802.3bt PoE specification with continued support for devices requiring IEEE802.3af/at. Eight RJ45 ports are each capable of supplying up to 90W of power to support the latest PoE devices with a total power budget of 720W. All 24 RJ45 ports can support up to 30W per port concurrently. For increased flexibility there are four RJ45/SFP combo ports along with two Gigabit SFP uplink ports which can be used as uplink ports or as an ITU-TG 8032 redundant ring. With support for VLAN, IGMP snooping, industry standard RSTP or MSTP and IEEE802.1x port security, it is suitable for use in critical networks. A rugged, fanless 1RU high, IP30 19" rack mounting enclosure and an operating temperature range from -20 to +70°C make it suitable for use in a wide range of harsh industrial environments.



OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

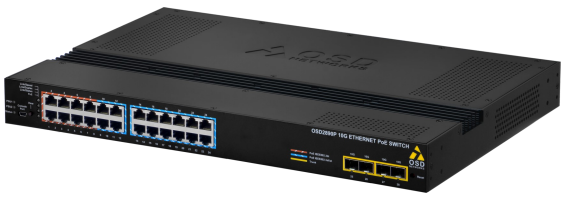
Managed Ethernet Switches

Layer 2 Managed 10Gb Ethernet Switches with PoE option

			
Product Range	**OSD2888**	**OSD2890**	**OSD2890SFP**
10/100/1000 Base-T RJ45 ports	12	24	-
Gb Optical port	-	-	SFP x 24
10Gb Optical Ports	SFP+ x 4	SFP+ x 4	SFP+ x 4
Power Input	10-36VDC or 100-264VAC(non PoE) Dual Input power option 46-57VDC (PoE)		10-36VDC or 100-264VAC Dual Input power option
Module Mounting	19" Rack Mount / Desktop		
Jumbo Frames	9.6kB		
PoE	12 ports (optional)	24 ports (optional)	-
PoE Classification	IEEE802.3af/at, IEEE802.3bt (Ports 1-8, max 90W/port)		-
PoE Power Budget	720W		-
Management Features	CLI, Web GUI, SNMP v1, v2c, v3		
Redundant Fiber Ring	ITU-TG8032 ERPS, MSTP/RSTP/STP		
VLAN	IEEE802.1Q VLAN. Private VLAN, Voice VLAN, Protocol based VLAN, GVRP, MVRP, MRP		
Security	IEEE802.1x Port Access Authentication, MAC based authentication, ACLs, DHCP snooping, BPDU Guard, RADIUS, TACACS+, SSL, SSH, HTTPS, SSLv3, Port Mirroring, sflow, Dynamic ARP Inspection, IP source guard, UDLD/equivalent, RMON		
QoS	Traffic Classes, Port policers, Port egress shaper, QoS Control List, DiffServ, Scheduler priority, Storm Control		
Multicast Protocol	RFC 2236 IGMP snooping v2, v3, MLD snooping v1, v2		
Layer 3 Routing	IPv4/IPv6 static routing, RFC2328 OSPFv2 dynamic routing, UPnP, RFC-1812 L3 checking		
IP rating (module version)	IP30		
Operating Temperature	-20 to 70°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

Featured Product

The OSD2890 is a full Layer 2 managed 28-port Industrial Ethernet switch offering some Layer 3 routing functions. It has four 10Gb SFP+ uplink ports that can be aggregated to support a 40Gbps trunk. Alternatively, two of the uplink ports can be used in a redundant ring topology with industry standard ITU-TG 8032 ERPS with RSTP/MSTP support. To meet the increasing demand for network security, the OSD2890 supports IEEE802.1x Port and MAC based security protocol making it suitable for deployment in critical networks. A rugged, fanless 1RU high, IP30 19" rack mounting enclosure and an operating temperature range from -20 to +70°C make it suitable for use in a wide range of harsh industrial environments



OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: + 61 2 9913 8540 Fax: +61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

PoE Injectors

			
Product Range	**OSD2971/48VDC**	**OSD2971/240VAC**	**OSD2J12-0BS2**
RJ45 Port Speed	10/100/1000 Base-T		
Power Input	-47 to -57VDC	100-264VAC	46-57VDC
Power Input Connection Type	2way 5.08mm Terminal Block	Australian standard plug with 1.4m lead	From OSD3700/9300 19" 2RU rack
Module Mounting	Wall		n/a
PoE Classification	IEEE802.3af/at		IEEE802.3af/at/bt
PoE Power Budget	30W	35W	90W
Maximum Cable Distance	100m		
IP Rating (module version)	IP30		
Operating Temperature	-20 to 65°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

			
Product Range	**OSD2J12-0AD6**	**OSD2J12-0BD6-95**	**OSD2J12-0HD6-95**
RJ45 Port Speed	10/100/1000 Base-T		
Power Input	12 to 56VDC		
Power Input Connection Type	6way 5.08mm Terminal Block		
Module Mounting	DIN Rail		
PoE Classification	IEEE802.3af/at	IEEE802.3af/at/bt	IEEE802.3af/at & PoH
PoE Power Budget	30W	95W	95W
Maximum Cable Distance	100m		
IP Rating (module version)	IP40		
Operating Temperature	-20 to 65°C		
Ambient Relative Humidity	5 to 95% (non-condensing)		
Warranty	5 years		

Accessories

Mode Converter

OSD2010 Industrial Fiber mode converter

Protocol transparent SFP to SFP mode converter
Operates with SFPs up to 10Gbps
Can also operate as an optical repeater to extend optical fiber transmission distances
Alarm outputs for loss of input power and for laser failure
Dual power supply inputs for 10 to 36VDC or 24VAC

Accessories

SFPs

Large range of SFPs supporting speeds up to 10Gbps
2 Fiber & Single Fiber SFPs transmitting over distances from a few meters to 180km
CWDM and DWDM wavelengths available
Industrial temperature range operating from –40 to +85°C

19" rack mount chassis for OSD cards

OSD370B 3RU high chassis for 14 cards and single **OSD921** power supply
OSD350B 3RU high chassis for 12 cards and dual **OSD921** power supply
OSD3700 2RU high chassis for 18 cards and single **OSD9221** power supply

Power Supplies

Large range of power supplies for use with OSD products
Australian plug packs for direct conversion to 12VDC power
Desktop power supplies for use with IEC C13 power cord with DC output from 12V to 56V providing up to 280W of power.
Industrial rated DIN rail mount power supplies with DC output from 12V to 55V providing up to 960W of power.

Optical Patch Leads

Both multimode and single mode patch leads available in any custom length in simplex or duplex configuration
Support all common optical connector types with angle polished option available
Single patch leads available, no large MOQ

Engineered Industrial Ethernet Solutions

Optical Systems Design Pty Ltd is an Australian designer and manufacturer of rugged industrial networking solutions.

Since 2007 OSD has applied the extensive fiber optic experience and expertise it has developed over more than 35 years to the design and development of products which meet the market's growing demand for Industrial Ethernet based networks. OSD works closely with both end users and system integrators to provide the best technical and economic solution along with ongoing support for the OSD network implementation.

OSD products are used throughout the world in environments ranging from roadside cabinets to remote mine sites, large campuses to single buildings. OSD has many thousands of systems operating reliably day in day out in extreme environments. Contact us today to find out how we can assist with your networking requirements.

OSD NETWORKS

OPTICAL SYSTEMS DESIGN PTY LTD
7/1 Vuko Place, Warriewood, NSW 2102, Australia
Telephone: +61 2 9913 8540 Fax: +61 2 9913 8735
Website: **www.osd.com.au** E-mail: **sales@osd.com.au**

Australian Designed—Australian Made—Australian Supported

For Optical Fiber Communications Solutions contact OSD for the latest catalogue or visit www.osd.com.au